DETAILED ACTION

REMARKS

1. Applicant's amendment dated October 27, 2010 responding to the April 28, 2010 Office Action provided in the rejection of claims 1-11, 13-16, 67-69 and 82-101, wherein claims 1-2, 4-7, 9, 13-16, 82-86 and 89-101 have been amended and new claims 106-119 have been added. **Claims 1-11, 13-16, 82-86, 89-101 and 106-119** remain pending in the application and which have been fully considered by the Examiner.

2. The Examiner withdraws the objection to claim 82 for the minor informalities, in light of Applicant's amendment.

3. The Examiner withdraws the rejection to claims 82-94 under 35 U.S.C. 101, in light of Applicant's amendment.

4. Applicant's amendment and arguments are found persuasive; see e.g. remarks pages 13-15. Therefore, the Examiner withdraws the rejection to claims 1-11, 13-16, 67-69 and 82-101 under 35 U.S.C. 103(a).

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone

conversation on April 18, 2011 with Yenyun Fu (Reg. No.: 59,141).

The application has been amended as follows:

IN THE CLAIMS:

1.   (Currently amended) A method for multicasting data through a network in real-
time, the method comprising the computer-implemented acts of:

multicasting said data through said network as a ~~rate-specific~~ data stream <u>having
a specific rate</u> using a bi-directional delivery protocol (BDP);

determining <u>an</u> ~~the~~ available bandwidth of said network <u>to connect to a first client</u>;
and

dynamically adjusting <u>a rate of</u> the ~~rate-specific~~ data stream based on the available
bandwidth determined for said network,

wherein, the ~~rate-specific~~ <u>adjusted rate of the</u> data stream ~~corresponds to~~
<u>is selected such that</u> the first client having available network bandwidth to receive the
~~rate-specific~~ data stream <u>at the adjusted rate based on the available bandwidth</u>;

wherein, said dynamic adjustment of the ~~rate-specific~~ <u>rate of the</u> data
stream occurs automatically based on the available bandwidth,

<u>multicasting at least a portion of the data to the first client at the adjusted rate</u>
<u>based on the available bandwidth</u>;

sending a signal to a checksum point to request a data packet of the data that is missing from the at least a portion of the data received at the first client;

passing corrective data through the network via the bi-directional delivery protocol; and

performing error correction to reduce packet loss using checksums when multicasting said data;

wherein, said data comprises video data that is multicasted through the network in uncompressed form, and

wherein, said bi-directional delivery protocol (BDP) comprises sending a binomial TCP forward packet and a simple UDP backwards packet allowing for matching up of the TCP packet and the UDP packet.

2.   (Cancelled)

4.   (Currently amended) The method of claim [[2]] 1, further comprising:
         receiving a checksum result at the first client; and
         determining a list of data packets that are missing from the at least a portion of the data received at the first client using the checksum result.

5.   (Currently amended) The method of claim [[2]] 1, further comprising:
         multicasting the data to a second client connected to said network.

16.   (Currently amended) The method of claim [[2]] 1, wherein, the first client is a wireless phone.

82.   - 105. (Cancelled)

106.   (Currently amended) The method of claim 1, wherein, to determine the available bandwidth, the first client receives a second rate of rate-specific data stream.

107.   (Currently amended) The method of claim 106, wherein, the first client ceases to receive the second ~~rate of~~ rate-specific data stream upon determination of insufficient available bandwidth.

108.   (Currently amended) The method of claim 1, wherein, said determining of the available bandwidth is based on a source client connected to said network and configured to send the rate of ~~rate-specific~~ data stream.

109.   (Currently amended) The method of claim 108, wherein said determining of the available bandwidth is performed, by the source client, through a process of increasing and decreasing the rate of the rate of ~~rate-specific~~ data stream sent for delivery to the first client.

110.   (Currently Amended) The method of claim 109, wherein the first client and ~~the~~ a second client join a group configured to receive the rate of ~~rate-specific~~ data stream, and wherein the rate of the rate of ~~rate-specific~~ data stream corresponds to a receiving rate of the first client and the second client.

111.   (Currently amended) The method of claim 1, wherein the dynamic adjustment of the rate of ~~rate-specific~~ data stream is based on modifying a TCP window size and modifying a compression rate of the data of the rate of ~~rate-specific~~ data stream.

112.   (Currently amended) The method of claim 1, wherein an increase in the available network bandwidth is achieved by filtering specific information from the rate of ~~rate-specific~~ data stream multicast through the network.

114.   (Currently amended) The method of claim 1, wherein the rate of ~~rate-specific~~ data stream is directed through one or more routers located on the network, wherein the one or more routers are not actively enabled for multicasting.

115. - 119.   (Cancelled)

REASONS FOR ALLOWANCE

1. The following is an Examiner's statement of reasons for allowance:

Claims 1, 3-11, 13-16, and 106-114 are considered allowable since when reading the claims in light of the specification, as per MPEP §2111.01 or Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999), none of the references of record alone or in combination disclose or suggest the combination of limitations specified in independent **claim 1**.

Because **claims 3-11, 13-16, and 106-114** depend directly or indirectly on claim 1, these claims are considered allowable for at least the same reasons noted above with respect to **claim 1**.

To the extent that these features are not found in the prior art cited by Examiner, the present case is held allowable over the art of record.

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

CONCULSION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH-CHAU NGUYEN whose telephone number is (571)272-4242. The examiner can normally be reached on 7AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GLENTON BURGESS can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MINH-CHAU NGUYEN/
Examiner, Art Unit 2442